

## Abstract

The invention relates to a group of novel piperazine and piperidine derivatives of formula (I), wherein: S<sub>1</sub> is hydrogen, halogen, alkyl (1-3C), CN, CF<sub>3</sub>, OCF<sub>3</sub>, SCF<sub>3</sub>, alkoxy (1-3C), amino or mono- or dialkyl (1-3C) substituted amino, or hydroxy; X represents NR<sub>3</sub>, S, CH<sub>2</sub>, O, SO or SO<sub>2</sub>, wherein R<sub>3</sub> is H or alkyl (1-3C);.....Z represents =C or -N; -R<sub>1</sub> and R<sub>2</sub> independently represent H or alkyl (1-3C), or R<sub>1</sub> and R<sub>2</sub> together can form a bridge of 2 or 3 C-atoms; R<sub>4</sub> is hydrogen or alkyl (1-3C); Q is methyl, ethyl, ethyl substituted with one or more fluorine atoms, cyclopropyl - methyl, optionally substituted with one or more fluorine atoms, and salts and prodrugs thereof. It has been found that these compounds have both partial dopamine D<sub>2</sub>-receptor agonism and partial serotonin 5-HT<sub>1A</sub>-receptor agonism mediated activities.

